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ABSTRACT

Fifteen teachers from grades one through twelve and sixty pupils were sampled using a contextual approach to the investigation of teachers' verbal and nonverbal behavior. Pupils were categorized as accepting, concerned, indifferent, or rejecting by their respective teachers, and the student-initiated question frame was selected as a suitable and relevant context within which to record teacher behaviors. Teacher proximity within the context of the student-initiated question was the nonverbal variable of interest; multiple observations were made of simultaneous verbal and nonverbal data within the selected context. Student attitudinal data was collected which further defined the selected pupil categories and was related to teacher behaviors. This study: (1) quantifies, within the context of student-initiated questions, the simultaneous verbal and nonverbal behavior of teachers; (2) operationalizes the theoretical models of Hall and Edney for a situational frame contextual unit strategy for the study of expressive behaviors; (3) defends a classroom context suggested by Brooks which demonstrates significant differences in teacher nonverbal behavior; (4) with attitudinal data, supports the pupil category system developed by Silberman; and (5) presents a methodological considerations which will enhance the descriptive and prescriptive capabilities of teacher behavioral observation schedules. (Author/HV)

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The Contextual Application of Observation Schedules Within Naturalistic Classrooms

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Problem

Methodological problems continue to haunt studies of teacher behavior through direct observation. These problems include: (1) which teacher behaviors to record; (2) when to record selected teacher behaviors; and (3) to whom or for whom (i.e. which students) are the observed teacher behaviors directed towards (Brophy and Good 1974, Good, Biddle and Brophy, 1975 and Duncan and Biddle, 1974). It is one level of prescription to suggest that "warm" teachers are more effective. It is another level of prescription that suggests which behaviors communicate "warmth". A still higher level of prescription is to suggest within which situational contexts, in naturalistic classrooms, the behaviors which seem to communicate "warmth" should be exhibited for maximum effectiveness. If the common sense motive for research on teacher behavior is the prescription of appropriate teacher behaviors, then it would seem important to prescribe: (1) how to behave; (2) in what context that behavior should be manifest, (3) and to whom the behavior should be directed. This type of prescription is possible only when the design of direct observation style studies includes considerations of salient behaviors, selected students, and situational contexts (Hall, 1976).

Objectives

Objectives include: (1) the application of a situational frame contextual methodology to the study of salient teacher behaviors. (2) an attempt to simultaneously record verbal and nonverbal behaviors using trained observers; (3) the validation of pupil categories that are currently being employed in investigations of teacher behavior; (4) the examination of relationships between observed teacher verbal and nonverbal behaviors and pupil category system developed by Silberman (1969) and used by Willis and Brophy (1974); (5) to encourage the contextual unit application of observation schedules in preference to the traditional time unit analysis methodology.

Theoretical Framework

Recent developments at the theoretical and methodological level suggest a solution to the point raised by Galloway (1974): "The truly difficult test is to know when an expressive cue is salient". Edney's (1974) review of human territoriality concludes that "studies that clarify this concepts relationship to adjacent concepts like privacy,

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interpersonal distance . . . are also called for". As regards the related topics of human territoriality and its nonverbal behavioral manifestations in interpersonal distance, Edney suggests that "no particular paradigm characterizes research on the topic, and as yet there is no standard set of principles that can be reliably applied to problems in the area". However Edney does borrow from Altman (1970) and suggests that "situational context, physical-social determinants and settings must be appreciated in any research paradigm". The work of Hall (1972) suggests such a paradigm in the "situational frame" approach to the study of nonverbal cues. Brooks (1974) has demonstrated the utility of this approach in assessing physical proximity as a salient nonverbal behavior of teachers. This research is an extension of Hall's model to studies involving direct observation of teacher behaviors within naturalistic classrooms and responds to questions recognized by Galloway (1974).

Method

The present investigation has operationalized a recent concept developed by researchers and theoreticians studying expressive cues: a contextual approach to the investigation of expressive behavior. Instruments of demonstrated reliability have been employed to record simultaneous verbal and nonverbal data within a selected contextual frame. Specifically: (1) pupils were placed in categories labeled accepting, concerned, indifferent, and rejecting by their respective teachers; (2) the student-initiated question frame was selected as a suitable and relevant context within which to record teacher verbal and nonverbal behaviors; (3) teacher proximity within the context of the student-initiated question was the nonverbal variable of interest; (4) multiple observations were made of simultaneous verbal and nonverbal data within the selected context; (5) attitudinal data was collected which further defines the selected pupil categories and relates to teacher verbal and nonverbal behaviors.

Data Source

The study sample included fifteen teachers from grades one through twelve and sixty pupils (four pupils per teacher representing the pupil categories identified by Silberman, 1969). A total of ninety minutes of simultaneous verbal and nonverbal data were collected per pupil. Data was collected at the University of Northern Iowa, Malcolm Price Laboratory School.

Results

The following results are reported:

1) Significant differences were demonstrated ($p < .001$, 3, 248 df) between identified pupil groups on the Describe Your School Inventory. (Table I).

2) Cell means, totals and standard deviations are reported for Describe Your School Data. (Table II).

3) Verbal scores across each verbal variable are expressed within the identified pupil groups. (Table III).

4) Reliabilities of verbal and nonverbal data will be reported.

5) Differences that approached significance are reported on kinesthetic data across identified pupil groups. (Table IV).

6) Cell means, totals and standard deviations, for the kinesthetic data, are reported. These data are expressed in feet. (Table V).

7) A Hoyt reliability extimate of (.86) is reported for the Describe Your School data.

Significance

This study: (1) quantifies within the context of student-initiated questions the simultaneous verbal and nonverbal behavior of teachers employing the Observation Schedule and Record 5V and the Proxemic Notation System; (2) operationalizes the theoretical models developed by Hall (1973) and further elucidated by Edney (1974); specifically a situational frame contextual unit strategy for the study of expressive behaviors; (3) defends a classroom context suggested by Brooks (1974) within which significant differences in teacher nonverbal behavior have been demonstrated; (4) appears to support, with attitudinal data, the pupil category system developed by Silberman (1969); (5) presents methodological considerations which promise to enhance the descriptive and prescriptive capabilities of teacher behavioral observation schedules.

References

Brooks, D. M., "The Relationship Between Teacher Nonverbal Behavior and Selected Teacher Pupil Attitudes and Behaviors". Paper presented at the 1975 Annual Meeting of the American Educational Research Association Convention, Washington, D. C.

Brooks, D. M., "A Contextual Approach to Investigating Verbal and Nonverbal Behaviors". Paper presented at the 1975 Annual Meeting of the American Psychological Association Annual Convention: Chicago, Illinois.

Brophy, J. E., and Good T. E., Teacher Student Relationships: Causes and Consequences. Holt Rinehart and Winston Inc., New York: 1974.

Dunkin, M. J., and Biddle, B. J., The Study of Teaching. Holt Rinehart and Winston, Inc. New York: 1974.

Edney, Julian J., "Human Territoriality" Psychological Bulletin 1974, Vol. 81, 12 pp. 959-957.

Galloway, C. M., "Nonverbal Teacher Behaviors: A Critique". American Educational Research Journal, Summer 1974, Vol. 11, 3, pp. 305-306.

Good, T. E., Biddle, B. J., and Brophy, J. E., Teachers Make a Difference. Holt Rinehart and Winston New York: 1975.

Hall, E. T., Handbook for Proxemic Research. Unpublished M. S., 1972.

Hall, E. T., Beyond Culture. Anchor Press. Garden City. 1976.

Medley, D. M., Notes on Keys for Oscar 5V. Unpublished M. S., 1973.

Rosenshine, B., and Furst, N., "The Use of Direct Observation to Study Teaching". in Travers, R. MW, Second Handbook of Research on Teaching.

Silberman, M. L., "Behavioral Expression of Teacher's Attitudes Towards Elementary School Students". Journal of Educational Psychology.

Willis, S., and Brophy J., Origins of Teacher's Attitudes Towards Young Children. Journal of Educational Psychology. August 1974, Vol. 66, 4, pp. 520-529.

TABLE I

Analysis of Variance for Variable

Describe Your School with (N=4) Groups

Source	Degrees of Freedom	Sums of Squares	Mean Squares	F	F Probability
Between Groups	3	1409.1875	469.7290	6.905	0.000
Within Groups	248	16871.8125	68.0315		
Total	251	18281.0000			

TABLE II

Cell Totals, Means, Standard Deviations for

Describe Your School Inventory Scores by Groups

	Cell Totals	Means	Standard Deviations
Accepted	61	39.5901	6.692
Concerned	65	33.9385	6.7405
Indifferent	60	36.9500	7.8836
Rejected	66	33.8939	10.8559

TABLE III

Observation Schedule and Record 5V
Verbal Scale Scores For Selected
Pupil Categories

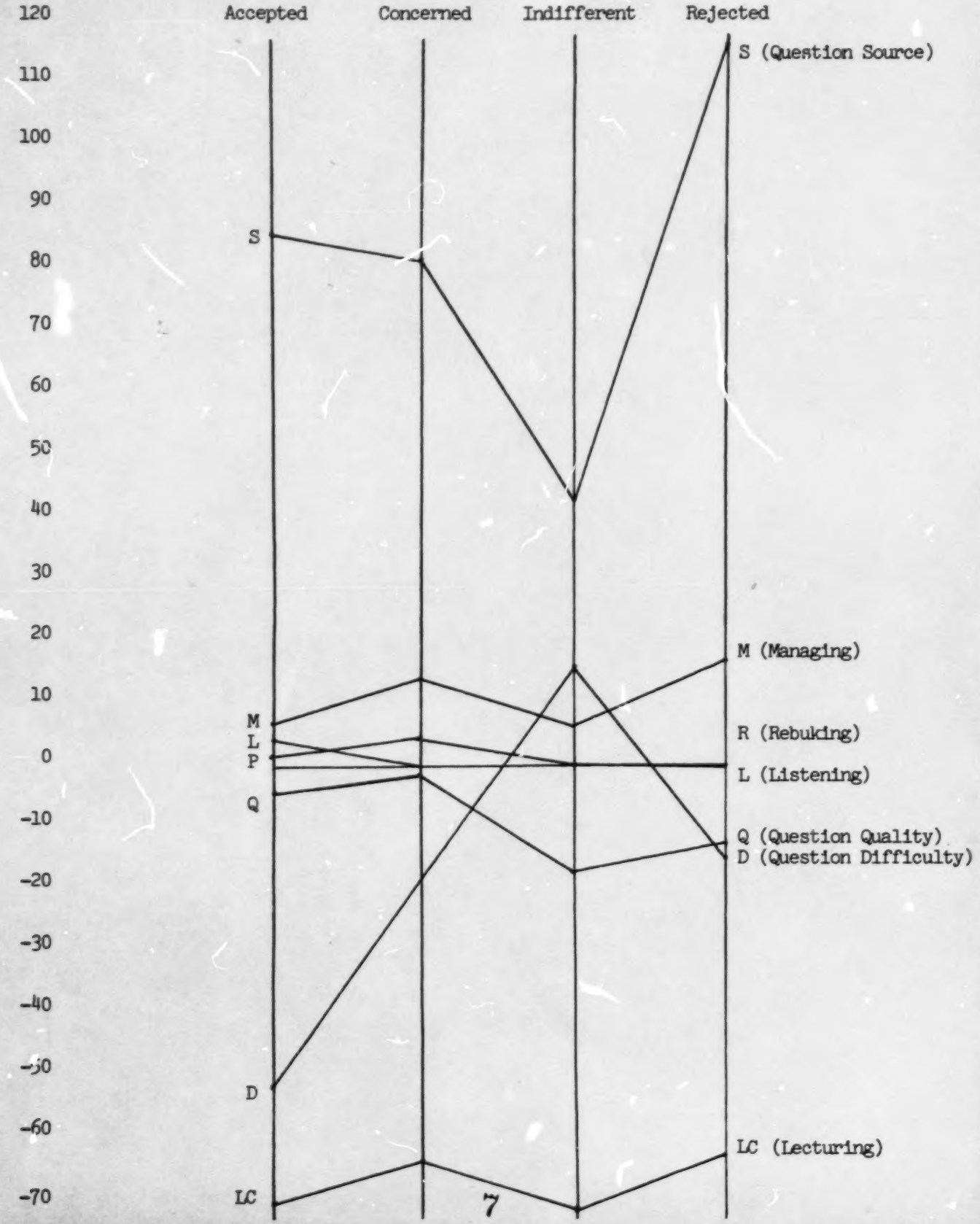

TABLE IV

Analysis of Variance For

Kinesthetic Data with (N=4) Groups

Source	Degrees of Freedom	Sums of Squares	Mean Squares	F Ratio	F Probability
Between Groups	3	128.5488	42.8496	2.136	0.096
Within Groups	160	3210.3948	20.0650		
Total	163	3338.9436			

TABLE V

Cell Totals, Means, Standard Deviations

For Personal Space by Groups

Groups	Cell Totals	Means	Standard Deviations	Range Maximum	Range Minimum
Accepted	43	2.9581	2.8835	.1000	10.0000
Concerned	34	1.9547	2.1556	.1000	10.0000
Indifferent	37	2.6730	3.0103	.1000	11.0000
Rejected	50	4.3420	6.9717	.1000	46.0000

Means and Standard Deviations Expressed in Feet. $\overline{X}$ = 3.1098

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